

In the Claims:

Please amend the claims as follows:

1. (currently amended) A power capacitor, comprising:

at least one capacitor element enclosed in a substantially cylindrical container of a material that substantially comprises a first polymer material, and wherein an envelope surface of the container ~~on its envelope surface~~ comprises a plurality of protrusions designed to extend ~~the~~ a creepage distance along the container, wherein the protrusions ~~are~~ substantially ~~of~~ comprise a second polymer material, ~~and~~ wherein the protrusions ~~are formed with respect to their~~ have a thickness and radial length ~~so such that they the protrusions~~ cool the capacitor, and wherein the at least one capacitor element is enclosed in at least one insulating medium that is not in a liquid state within a working temperature interval of the capacitor.

2. (previously amended) The power capacitor according to claim 1, wherein the protrusions comprise at least one protrusion with a thickness in the interval of 0.2-10 mm and a radial length in the interval of 5-50 mm.

3. (previously amended) The power capacitor according to claim 2, wherein the protrusions comprise at least one protrusion with a thickness in the interval of 1-4 mm and a radial length in the interval of 10-25 mm.

4. (currently amended) The power capacitor according to claim 1, wherein ~~essentially~~

~~the whole~~ substantially all of the envelope surface of the power capacitor is covered with a plurality of the protrusions.

5. (previously amended) The power capacitor according to claim 1, wherein the protrusions comprise a plurality of smaller protrusions with a thickness in the interval of 0.2-10 mm and a radial length in the interval of 5-30 mm, and wherein the small protrusions are arranged in the vicinity of at least one larger protrusion with a thickness in the interval of 2-10 mm and a radial length in the interval of 20-60 mm.

6. (currently amended) The power capacitor according to claim 5, wherein the protrusions comprise a pattern with a plurality of smaller protrusions and at least one larger protrusion, and wherein the pattern is repeated along ~~essentially~~ substantially the whole envelope surface of the capacitor.

7. (previously amended) The power capacitor according to claim 6, wherein 10-20 smaller protrusions are arranged in the vicinity of at least one larger protrusion.

8. (previously amended) The power capacitor according to claim 1, wherein the protrusions are arranged with an axial pitch in the interval of 5-25 mm.

9. (cancelled)

10. (currently amended) The power capacitor according to claim 1, wherein the first

polymer material and the second polymer material are of the same kind of polymer materials.

11. (currently amended) The power capacitor according to claim 1, wherein the insulating medium, the container and the protrusions of the container ~~are all for the most part of~~ substantially comprise rubber, ~~preferably silicone rubber~~.

12. (currently amended) The power capacitor according to claim 11, wherein the insulating medium, the container and the protrusions of the container all comprise a ~~are of the~~ same kind of rubber.

13. (currently amended) The power capacitor according to claim 1, wherein the insulating medium, the container and the protrusions of the container ~~are all for the most part of~~ substantially comprise a thermoset polymer.

14. (currently amended) The power capacitor according to claim 13, wherein the insulating medium, the container and the protrusions of the container ~~are of the~~ comprise a same kind of thermoset polymer, and wherein the thermoset polymer is based on one of the following materials: epoxy, polyurethane, polyester.

15. (previously amended) The power capacitor according to claim 1, wherein the insulating medium, the container and the protrusions of the container are injection-molded in one single piece.

16. (currently amended) The power capacitor according to claim 1, wherein the container and the protrusions of the container ~~are of~~ comprise different polymer materials.

17. (currently amended) The power capacitor according to claim 16, wherein the container ~~is of~~ comprises polyethylene and the protrusions ~~are of~~ comprise silicone rubber or EPDM.

18. (currently amended) The power capacitor according to claim 16, wherein the container ~~is of fibre~~ comprises fiber-reinforced thermoset polymer and the protrusions ~~are of~~ comprise silicone rubber or EPDM.

19. (currently amended) The power capacitor according to claim 16, wherein the insulating medium ~~is~~ comprises silicone in gel state.

20. (currently amended) The power capacitor according to claim 16, wherein the insulating medium is based on a thermoset polymer.

21. (currently amended) The power capacitor according to claim 1, wherein the capacitor comprises at least one tubular element running in ~~the~~ a cylinder direction and extending through each capacitor element.

22. (cancelled)

23. (cancelled)

24. (cancelled)

25. (currently amended) A method for manufacturing a power capacitor comprising at least one capacitor element enclosed in a substantially cylindrical container made of a material that substantially comprises a first polymer material, ~~and~~ wherein an envelope surface of the container ~~on its envelope surface~~ comprises a plurality of protrusions designed so as to extend the creepage distance along the container, the protrusions are made of a second polymer material, ~~that the method comprising:~~

forming the protrusions ~~are formed~~ with respect to their a length and a width ~~so such~~ that ~~they the protrusions~~ cool the capacitor, ~~and~~

encapsulating the at least one capacitor element/s ~~is/are encapsulated~~ in a container, and enclosing the at least one capacitor element in at least one insulating medium that is not in a liquid state with a working temperature interval of the capacitor.

26. (cancelled)

27. (currently amended) The method according to claim ~~26,~~ 25, wherein the manufacture of the container, the application of the protrusions, the encapsulation of the at least one capacitor element/s element and the enclosure in the insulating medium ~~are achieved by~~ comprise injection molding.

28. (currently amended) The method according to claim 27, wherein the first polymer material and the second polymer material comprise is rubber, ~~preferably silicone rubber.~~

29. (currently amended) The method according to claim 27, wherein the injection molding ~~occurs in~~ comprises one single step and with one single material.

30. (currently amended) The method according to claim 27, wherein the injection molding ~~occurs in~~ comprises two steps, whereby in a first step the at least one capacitor element ~~s is/are is~~ is enclosed in the insulating medium and in a second step the container is manufactured, and the protrusions are applied, and wherein in the first step a polymer material is used as material which has lower viscosity than the polymer material that is used in the second step.

31. (currently amended) The method according to claim ~~25, 27,~~ wherein a cylindrical polymer tube is provided for forming the container, wherein the protrusions are applied to the polymer tube, whereby the tube ~~is preferably of~~ comprises polyethylene, and wherein the at least one capacitor element ~~s is/are is~~ is placed in the polymer tube.

32. (currently amended) The method according to claim ~~25, 27,~~ wherein each capacitor element prior to injection molding is applied to a tubular element extending through each capacitor element.

33. (cancelled)

34. (currently amended) The method according to claim 31, wherein the protrusions are applied to the container by injection molding, by winding ~~them~~ the protrusions in a spiral around the container, or by providing ~~them~~ the protrusions as prefabricated sleeve-like elements which are threaded onto the container.

35. (cancelled)

36. (cancelled)

37. (currently amended) The method according to claim 34, wherein at least ~~the~~ an outside of the container is coated with silicone before the protrusions are applied.

38. (previously amended) The method according to claim 31, wherein the protrusions are applied to the container by injection molding and wherein the container is surface-modified prior to the injection molding.

39. (currently amended) The method according to claim 31, further comprising:
applying wherein a mechanical support ~~is applied~~ for the container prior to the injection molding.

40. (currently amended) The method ~~Use of a power capacitor~~ according to claim 1 + 25,
further comprising:

utilizing the capacitor element at voltages exceeding 1 kV, ~~preferably at least 5 kV.~~

41. (currently amended) The method ~~Use of a power capacitor~~ according to claim 4 25,
further comprising:

installing the capacitor in a system for transmission of alternating current (AC).